CHAPTER 1
INTRODUCTION

Liberalisation of our country’s economy has offered various challenges and opportunities to our firms. The firms, which were enjoying the protection of covens of the Indian license raj system prior to liberalization, are now subject to cut-throat competition from both the local and global players. The frontiers of market for the firms are far expanding and the business environment is changing at a rapid pace. This has inculcated a spirit of competitiveness among the Indian firms. These firms, though enjoy the privilege of operating at the global level, are subject to various challenges, which bring in numerous problems which are intrinsic and typical to the Indian context. Though the firms are subject to problems which are indianised in nature, Indianised solutions to these problems are far from being realized. One important challenge confronting the Indian firms relates to Supply Chain Management (SCM), and the nature, scope, problems and opportunities associated with the SCM with an Indianised context (Janat Shah, 2009). The nature, scope, opportunities and challenges of SCM relevant to Indian scenario constitute the motivation of the proposed research work.

The globalised scenario has led to the evolution of sophisticated technologies which has led to innovative business practices. This has warranted much stronger collaborations between the suppliers, manufacturers and the third party logistics providers. Consequently, SCM has evolved itself into an effective tool, immensely contributing to the perpetual success of the industries.

Suppliers in the current scenario are not merely deemed as silent vendors, catering to the needs of their customers as and when such need arises. Instead, present day suppliers have taken the role of being strategic partners with their client companies, having a strategic alliance with such companies. Consequentially, the long term competencies of such companies have witnessed a drastic enhancement. Such a prototype change in pattern has caused a drastic modification in the mind frame of the Indian industrialists. This has consequentially resulted in the formation of a knowledge chasm. This phenomenon merits detailed and in depth research to derive a well coordinated and integrated approach involving the entities of supply chain.
1.1 INDIAN SCENARIO AND SUPPLY CHAIN ISSUES

Rapid Economic Growth: Indian economy in the past decade has witnessed tremendous growth, which is indicative of the rapid strides our country is making in the recent past. Indian economy is predicted to outsmart the economic potency of United States economy by 2050. As per the IMF statement, Purchasing Power Parity (PPP) of India is $ 4.4 trillion, which is the third best in the world. India ranks fifth in the globe with respect terms to GNP and is the second fastest growing economy next to China (Neil and Poddar, 2008). The 2008 recession has not dampened the growth rate achieved by the country. India accounts for almost one-fifth of the global output and is the fastest growing market in the world. India occupies the first ten positions in consumer market in the world. The value of Indian consumer market is almost 250 billion USD. The Indian logistics segment is nearing intonation. Value of world logistics sector is almost USD 3.5 trillion. The cost of logistics ranges generally from 9-20% of GDP. The Indian Logistics market contributes almost 13% of GDP and the market is expanding at a whopping rate of 20% (Sahay and Mohan, 2003).

India is attracting enormous FDI, especially in automobile and electronics industries. This is projected to have a favourable effect on growth of the country. The Government’s proposal to allow FDI in retail sector is anticipated to have major impact on the economy. Furthermore, development of organised retailing and agricultural processing activities is expected to exert significant effect in the economic growth. The country is highly blessed with enormous human, technological and methodical resources. High entrepreneurial talent is available abundantly in the country. Developments in the economy such as economic reforms, growth in productivity, cheap credit, rising income of middle class, introduction of Value Added Tax (VAT) and growing educated middle class fuels consumption, which enhances production, and subsequently the growth of the economy.

Well Educated Consumers: It is well recognized that the modern consumers are well educated. They are highly conscious of the prices and quality of all the products available in the market, and they will not ready to pay anything more than the best economical price for a product with a given standard. Hence, manufacturing enterprises cannot afford to incur much cost on logistics issues, as the price-conscious consumers will resist any price enhancement initiative.
Low Economic Conditions of Customers: Large numbers of customers in India are at the bottom of the economic pyramid. 37% of India’s population is still living under the poverty line, while 72% of the population is dwelling in interior rural areas (CMIE). This massive market cannot be tapped easily as the poor infrastructure facility in the country complicates the reach ability of these customers. Hence, it becomes inevitable for Indian manufacturers to follow suitable innovative supply chain practices to reach this market.

Poor Infrastructure: Indian infrastructure is not at satisfactory levels, considering the developments occurring in other developed and developing nations. The country’s connectivity, either by airways, roadways, rails or Seaways is miserable. India’s ICT sector and Energy generation is not at desirable levels. India ranks 54th among 59 countries as far as infrastructure are concerned. India’s logistics infrastructure is very poor because of the fact that both warehousing and transportation are largely in unorganized sector. This makes Indian enterprises to spend a whopping 12 to 15% of their income on logistics (Janat Shah, 2009). Almost 22% of the aggregate sales of the Indian industries, amounting to a whopping US$25 billion, are locked up in inventories due to the poor infrastructure facilities in the country (CMIE). Furthermore, the practice of firms to decide on location of their plant based on the tax concessions provided by the Government adds more pressure on logistics. Firms decide about their plant location without giving due emphasis to demand factor, which implies that firms have to spend huge amount on transporting their produce to the market. It has been estimated that the current economic growth of the country warrants an investment of almost Rs. 14 trillion on infrastructure (Parkar and Dubey, 2009).

Poor Socio-economic Plight of India: The competitive spirit of Indian business is adversely affected by negative aspects such as license-raj, price-administration, government ownership of important sectors, excessive trade and tariff barriers, unstable government policies, currency controls, and exorbitant corruption. The distribution mechanism available in the country is very weak. Fragmentation of the market, vast diversities in the demographic profile of population and poor technology in the country adds fuel to the problem.

Other Problems: The country is confronting numerous problems which have a direct bearing on supply chain logistics of enterprises. Some of such problems are
vague government policies, substandard management of business enterprises because of incompetency of corporate boards, deficient attentiveness towards human progress, stumpy labour efficiency, unreliable quality, deficient customer focus, insufficient R&D investments, existence of many unorganized business organizations, controlled by least guidelines, lack of sufficient dependable information and incompetent utilization of IT and insufficient availability of skilled manpower;

The challenges posed by the aforementioned discussion can be well countered by the Indian manufacturing enterprises only if their quality and service is drastically enhanced. Towards this endeavor, it becomes inevitable to address the deficiencies encountered by the manufacturing enterprises in their SCM front. Only this will render the Indian manufacturing enterprises viable and competitive in the liberalized and globalised scenario. In light of the above scenario, it has become inevitable for business firms to focus closely on SCM to ensure that they are not eroded by the highly competitive global environment. Consequently, Indian firms have initiated measures placing utmost importance to master SCM process. Numerous researches has been conducted in the field of SCM and Indian enterprises have to comply with the requisites spelt out in these research studies about their respective SCM practices and adopt an effective SCM which is compatible with Indian scenario.

Innovative, unique and superior supply chain practices adopted by some Indian cases and companies such as Amul, Shakti project of Uniliver, Dabbawalas of Mumbai, Asian Paints and Marico industries have enabled their companies to outsmart their competitors and manage better profitability and counter the extensive competition waged in the current LPG scenario.

Despite numerous research studies involving SCM being conducted in the western countries, Indian enterprises have not tuned their SCM process in par with their western and other Asian counterparts. This is attributed to the fact that foreign studies on SCM have yielded strong theoretical knowledge but this cannot be replicated to Indian context blindly. Results of the western authors have to be suitably customized to aptly suit to the Indian environment. This requires a comprehensive study on the various factors which impact SCM practices of Indian firms and the inter-relationships of these factors have to be studied closely by giving due importance to Indian context. Consequently, studies concentrating on the post-liberalization SCM functions of manufacturing firms have started gaining momentum.
The proposed research aspires to address the research gap existing in India by providing a theoretical framework regarding the various components related to SCM in India and their impact on the organizational performance of the manufacturing firms.

1.2 STATEMENT OF THE PROBLEM

Customer satisfaction and minimization of overall cost of supply chain is the central mantra around which an organization operates its value chains and today’s competition is not among the firms but it is among the firms’ supply chains. The critical aspect of this value chain is the complex system of SCM which interfaces with different components in a manufacturing set up. However gaining an upper hand in these critical dimensions of SCM means and having a profound knowledge of the essential components involved in it and the intricate manner by which it interlays among itself and its impact on organizational performance, that will helps business executive to take decisions on SCM. Hence in today’s competitive scenario, the limited resources available to the firm must be better utilized to understand SCM and thereby provide better value to customers and improve the overall performance of the organization (Chow et al., 2006).

Union Territory (UT) of Puducherry is a small Union Territory of India, administered by an industry-friendly government, implementing pro-active investment policies. The UT of Puducherry has made remarkable industrial progress in the past few decades with the establishment of over 75 large scale industries, 182 medium scale industries and a whopping 8110 small and micro scale industries and around 50 percentage of Gross State Domestic Product (GSDP) of UT of Puducherry is contributed by manufacturing industries. These are testimony for the rapid industrial strides made by the UT of Puducherry in the recent past.

The Government of UT of Puducherry has offered many tax concessions for the establishment of industries in the region. However, these tax concessions are available for all industries established anywhere in India in Special Economic Zones (SEZ) policy. Hence, this nullifies the competitive advantage that UT of Puducherry has offered to industries in the form of tax concessions. Industries in UT of Puducherry face many logistics and supply chain problems such as lack of proper warehousing facilities in the organized sector, absence of proper transportation facilities by sea, air and rail, and unavailability of skilled labour and quality raw materials. Easy
availability of all these facilities in Chennai, which is very close to UT of Puducherry, results in effective supply chain management of enterprises in Chennai, which help these enterprises to gain immense competitive advantage over the enterprises in UT of Puducherry. This necessitates the need for the business units of UT of Puducherry to make their supply chain management more effective to cope with these challenges and improve their overall performance of the manufacturing Industries. Hence, these business units must clearly know the nature of supply chain management, critical components of the SCM and the relationships between these components and its impact on organizational performance, so that the executives of these enterprises can formulate and adopt best supply chain practices regarding this to improve the efficiency of these components, which ultimately result in the improvement of the overall organizational efficiency and competitiveness of business firms in UT of Puducherry.

1.3 RESEARCH QUESTION

From the above statement of problem subsequent research question are examined in this research work:

What is the impact of important components of SCM on the performance of the supply chain per se and also on the organizational performance?

1.4 OBJECTIVES OF THE PRESENT RESEARCH WORK

The following are objectives of the present research work:

1. To study the relationship between supply chain management components and supply chain performance of manufacturing enterprises.

2. To study the impact of supply chain management components and supply chain performance on organizational performance of manufacturing enterprises.

1.5 SIGNIFICANCE OF THE STUDY

This research work proposes to explore a gamut of SCM and develop models that affect supply chain performance and organization performance. The research endeavors to study the strong influence exerted by SCM on the successful performance of a firm. Further, this research work has made an effort to build up a valid and reliable instrument to determine the extent of influence that SCM components and supply chain performance shall exert on organizational performance. This would extremely helpful for manufacturing executives to take strategic, tactical
and operational decisions regarding their organizations. Thus, this research work would be immensely useful to the manufacturing enterprises, policy makers, practitioners, researchers and academicians

1.6 SCOPE OF THIS RESEARCH WORK

Many research studies have been conducted on various SCM components. This research concentrates on testing the association between the critical components of SCM and their influence on supply chain performance and thereby on the organizational performance of Manufacturing Industries. Thus, this research is SCM centric, focusing in depth on the critical components of SCM such as its concerns, competences, and practices.

Union territory of Puducherry was taken as the sample region for the study as its favorable taxation structure and pro-active investment policies has enabled it to flourish into a strong industrial hub and it is ideally suited to study the vagaries affecting the SCM and its impact on organizational performance.

The focus of the present research work is on perception of executives of manufacturing firms on supply chain concern, supply chain competence, supply chain practice, supply chain performance and organizational performance because they are the executors of important business activities and policies in the manufacturing industries and this research work based on primary data using questionnaire contains SCM components, organizational performance and supply chain performance variables of manufacturing industries and even for performance variables supply chain performance and organizational performance were collected through the perception of manufacturing executives and it is not based on the secondary data from the manufacturing industries.

1.7 CHAPTERIZATION

This research work has presented in six chapters.

Chapter I Introduction explains the various nature, challenges, opportunities of SCM and its relative importance in the development of the company and in turn on the development of the nation. It also explains the statement of problem, introduces the research question, significance of the research work, objectives, scope of the research work and framework of the present research work.

Chapter II consists of literature review of the present research work through previous research studies and defining the operational terms of the variables used in
the research work also elaborates the methods and relationship measures involved in the previous research work, presented a brief summary of literature review used in this research work and a conceptual model has proposed from the literature review and research gap were indentified.

Chapter III address the research methodology followed in the research work with respect to research design, data collection, instrument design and its rationale, reliability and validity, sample size estimation, sampling methodology followed and statistical tools employed for this research work.

Chapter IV contains seven sections addressing the various dimensions and testing hypotheses of the conceptual model of the present research work. These seven sections are given below:

1. The first part addresses the profile of the manufacturing industries.
2. The second part consists of supply chain concern dimension.
3. The third part consists of supply chain competence dimension.
4. The fourth part consists of supply chain practice dimension.
5. The fifth part consists of supply chain performance dimension.
6. The sixth part consists of organizational performance dimension.
7. The seventh part deals with testing the hypotheses of conceptual model using Structural Equation Modeling (SEM) framework.

Chapter V presents the summary of finding of the research work.

Chapter VI contains conclusions which include implications, contributions of the research work, recommendations to manufacturing firms and policy makers, limitations and scope for further research.
1.8 FRAMEWORK OF THE PRESENT RESEARCH WORK

The following Figure 1.1 illustrates various phases involved in the present research work which are given below:

- **Statement of problem**
- **Research Question**
- **Objectives**
- **Review of Literature**
- **Pilot Study**
- **Initial Reliability Check using Cronbach’s Alpha value**
- **Research Methodology**
  1. Research Design
  2. Nature and Source of data
  3. Sampling Design
- **Content Validity**
  1. Subject Expert
  2. Tested Instrument
- **Scale Development and Purification**
- **Conceptual Model**
  - **Construct Validity**
    1. Convergent validity
    2. Discriminate Validity
    3. Unidimensionality
  - **Dimension Level Analysis**
    1. Supply Chain Concerns
    2. Supply Chain Competence
    3. Supply Chain Practices
    4. Supply Chain Performance
    5. Organizational Performance
  - **SEM assumptions checking**
    1. Normality
    2. Linearity
    3. Multicollinearity
    4. Homogeneity
- **Data Analysis**
  - Testing the hypotheses proposed in the conceptual model using CFA and Path Analysis of SEM
- **Results and Discussion**
- **Summary of Findings**
- **Suggestions and Conclusions**
  1. Implications of the study
  2. Contribution of the study
  3. Limitation and Further study

Figure 1.1 Framework of the present research work